

Improvement of Communication with Primary Care Practitioners with The Use of Emergency Department Discharge Summaries

Benjamin M. Ramasubbu, Lee Yap, Ayman El-gammal, Una Kennedy
Department of Emergency Medicine, St James's Hospital, Dublin, Ireland

Abstract

Objective: To assess the quality of documentation and the frequency of provision of discharge summaries to general practitioners (GP) for patients discharged from our emergency department (ED).

Material and Methods: The ED records of 50 patients who presented to the ED and who had been discharged to self-care or the care of their GP on an arbitrarily chosen day were selected for auditing. A pre-formatted computerised discharge summary was then introduced to the ED and the first 50 consecutive electronic discharge summaries of patients who visited the ED were selected for auditing.

Results: In the first audit cycle, a diagnosis was documented in 78% of cases. Documentation of key investigation results was present in 84% of cases. Documentation that a prescription was provided to the patient was present in 46% of cases. Documentation of appropriate follow-up care and self-care instructions was demonstrated in 68% and 50% of cases. Of those discharged to GP care, none had documentation that a GP letter was sent or a copy attached. Second cycle: GP correspondence letters were sent and a copy saved in all cases. A diagnosis, follow-up care plan and results of key investigations were documented in 100% of discharge summaries. Self-care instructions on discharge were documented in 94% of cases.

Conclusion: The introduction of electronic discharge summaries improved the quality and safety of the discharge process within our emergency department and paves the way for further improvements in information transfer technology. (*JAEM 2014; 13: 22-5*)

Key words: Communication, discharge summaries, documentation, electronic

Introduction

Studies carried out in the emergency department (ED) setting have demonstrated that the provision of discharge information via a discharge summary in conjunction with verbal instructions improves both patient understanding of self-care at home and management of their medical issue (1-4). Previously, discharge summaries and the provision of discharge instructions to patients being discharged from the ED was not a standardised practice in our institution.

Patients discharged from hospital may not realise the importance of follow-up with their primary care physician or General Practitioner (GP) (5). Therefore, discharge summaries should be provided to the GP of all patients treated in the ED in order to facilitate continuity of care. Poor communication between emergency physicians (EP) and GPs may be a contributing factor leading to adverse events after a patient has been discharged from hospital (6).

Even with the receipt of discharge summaries, GPs may be dissatisfied with the level of detail included in the summary, as well as the timeframe of its arrival (7). Prior to commencing this study, communication with GPs in our institution was done at the discretion of the treating EP by means of a hand written letter.

The use of computerised discharge summaries has been an ongoing area of interest in hospitals in order to increase efficiency, accuracy and speed of communication with GPs. Results of research have been mixed, with some studies suggesting that the accuracy of discharge summaries is independent of the method used but is rather physician-dependent (8, 9). There are many potential advantages of electronic discharge summaries, with several factors influencing their success but regardless of these, the importance of the discharge summary as a chief means of transferring patient information from the hospital to the GP needs to be strongly emphasised.

It is the duty of the treating EP to ensure continuity of care for the patient once discharged from the hospital. A legal obligation exists for a physician to ensure accurate and adequately detailed medical



Correspondence to: Benjamin Mohan Ramasubbu, Department of Emergency Medicine, St James's Hospital, Dublin, Ireland
Phone: 00353 857880972 e.mail: ramasubb@tcd.ie

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notes for every individual that comes under their care. EPs are continually under pressure to deliver the highest quality of patient care (10) and with an ever increasing workload, it is no surprise that less time may be spent on documentation (11). This can expose staff to legal ramifications at a later date in the event of an adverse outcome (12).

We undertook this study to investigate documentation of information regarding patient discharge by EPs and the provision of discharge summaries to GPs.

Material and Methods

We aimed to assess the quality of documentation and frequency of provision of discharge summaries to GPs for patients discharged from our ED. Following this a pre-formatted electronic discharge summary was introduced in order to standardise discharge summaries.

- First Audit Cycle

The ED records of 50 patients who presented to the ED and who had been discharged to self-care or the care of their GP on an arbitrarily chosen day (22/05/12) were selected for auditing. No other exclusion criteria were used.

Their ED records were assessed for documentation of relevant information regarding their discharge diagnosis, results of key investigations undertaken while in ED, prescribed medications, additional instructions upon discharge, planned follow up care and information conveyed to the GP.

- Intervention

A pre-formatted computerised discharge summary was introduced to the ED on 07/07/2012. It was used for all patients discharged to GP or self-care.

Every doctor and advanced nurse practitioner (ANP) working in the ED underwent training on the use of the discharge summary software prior to its introduction.

- Second Audit Cycle

The first 50 consecutive electronic discharge summaries of patients who visited the ED were selected for auditing. These 50 patients must have been discharged to self-care or to the care of their GP. No other exclusion criteria were used.

Additionally, the use of the electronic discharge summaries was investigated by observing their use on three arbitrarily selected days (27/08/2012, 18/09/2012 and 12/11/2012).

Statistical Analysis

The results were compared using χ^2 test.

Results

The results of the first audit cycle are shown below in Figure 1, 20/50 patients (40%) were discharged back to their GP and 30/50 (60%) to self-care. A diagnosis was documented in 16/20 (80%) and 23/30 (77%) of cases respectively. Documentation of key investigation results was present in 15/20 (75%) and 27/30 (90%) respectively. Documentation that a prescription was provided to the patient was present in 10/20 (50%) and 13/30 (43%) of cases respectively. Documentation of appropriate follow-up care and self-care instructions was demonstrated in 34/50 (68%) and 25/50 (50%) of cases. Of those discharged to their GP, all had documentation of this (20/20) yet none had documentation that a GP letter was sent or a copy attached (0/20).

After the introduction of the electronic discharge summaries, the first 50 were analysed. The results are shown below in Figure 2. 35/50 (70%) patients were discharged to the care of their GP and 15/50 (30%) to self-care. GP correspondence letters were sent and a copy saved in all cases (50/50). A diagnosis, follow-up care plan and results of key investigations were documented in 50/50 (100%) of discharge summaries. Self-care instructions on discharge were documented in 94% of the patients discharged both to self-care and GP care. The prescription of medications given or not given was documented in 41/50 (82%) of cases.

On the three arbitrarily chosen days, in patients discharged to GP or self-care, the electronic discharge summaries were used in 20/57 (35.1%), 23/58 (39.7%) and 20/57 (35.1%) of cases respectively.

Figure 3 compares the percentage documentation of each of the six parameters for the two audit cycles and Table 1 demonstrates the significant improvement in documentation between the two audit cycles.

Discussion

Good clinical practice involves comprehensive documentation relating to a patient's discharge diagnosis, discharge prescription, follow-up care and, where relevant, self-care instructions. It is also very important to communicate this information to the GP. This audit was initiated to evaluate what discharge information was being documented on the ED patient records in our institution.

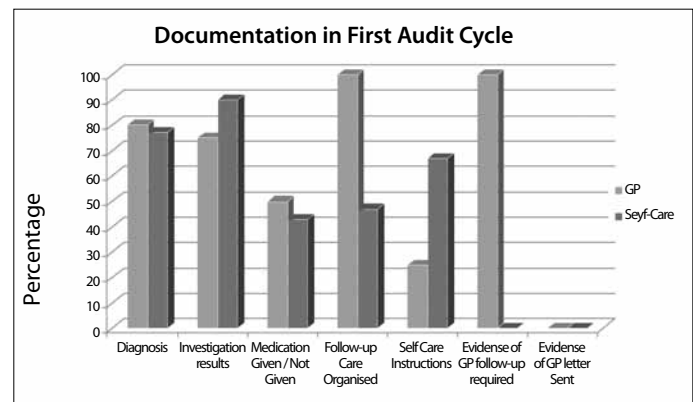


Figure 1. Demonstrates the level of documentation for patients discharged to GP and Self-Care in the first Audit Cycle

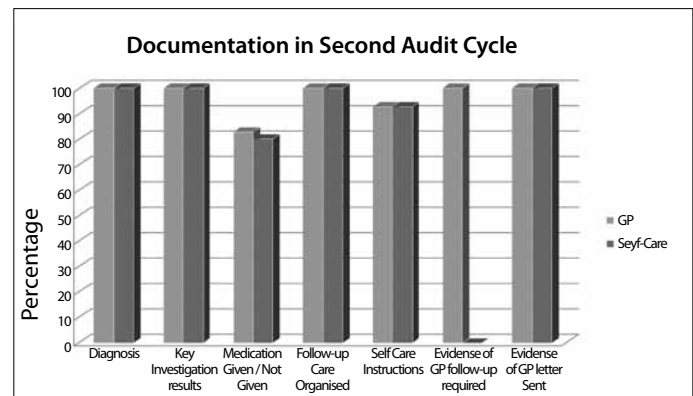


Figure 2. Shows the level of documentation of the first 50 patients following the introduction of the Electronic Discharge Summaries

Table 1. Compares the percentage documentation of each of the six parameters for the two audit cycles and additionally, shows the significant improvement in documentation for each of the six parameters with the introduction of the Electronic Discharge Summaries

Documentation	1 st Cycle (%)	2 nd Cycle (%)	p value
Diagnosis	78	100	<0.001
Key Investigation Results	84	100	<0.001
Medications Given/Not Given	46	82	<0.001
Follow-up Care Organised	68	100	<0.001
Self Care Instructions	50	94	<0.001
Gp letter Attached	0	100	<0.001

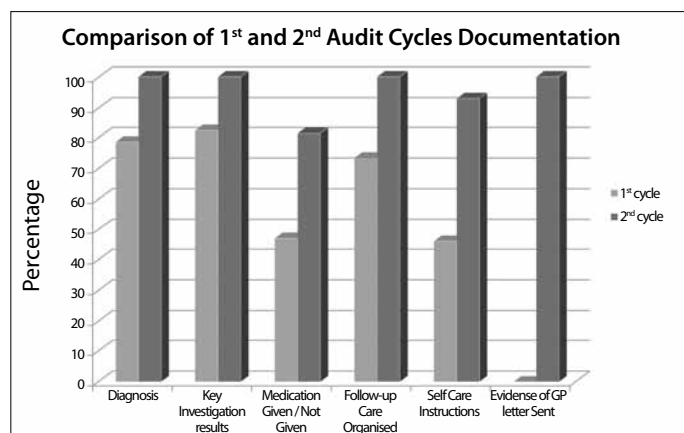


Figure 3. Compares the percentage documentation of each of the six parameters for the two audit cycles

In order to improve quality of patient care, a pre-formatted computerised discharge summary was introduced to provide a uniform method of record keeping that incorporated all relevant discharge information.

The results show a significant improvement ($p < 0.001$) in documentation of each of the six parameters with the use of the electronic discharge summaries. Unfortunately, the electronic discharge summaries are only being utilised in 35-40% of ED discharges. The aim is that they will fully replace the pre-existing hand written discharge summaries that were previously used in our ED.

An electronic discharge summary has several potential advantages when compared with traditional hand written letters. Firstly, the discharge summaries generated can be stored as a searchable database, providing a large repository of readily available data that would otherwise be embedded in a paper record. This also ensures that a copy is available within the department in case of the need to reproduce it in the future. Secondly, they can be modified to mandate the input of key areas of documentation prior to completion, ensuring consistent documentation. Thirdly, computerised summaries are clearer to read and can prevent difficulties arising from the interpretation of hand writing. Lastly, it allows for possible emailing of discharge summary letters to GP's. Email has the potential for instant transfer of information without the uncertainty of delivery by patients. In the modern era where efficiency is paramount, this is the next logical step for hospital and primary care communication.

Despite these benefits, electronic discharge summaries have a number of drawbacks which must be considered before their use within an institution. In order to improve efficiency, members of staff require training in the use of the discharge summary software. Access to and use of computers for typing can be time-consuming. To combat this, within our department each doctor and ANP underwent an introductory session on the use of the software package prior to its introduction. It is anticipated that, over time, staff efficiency in its use will improve.

Although the electronic discharge summary usage in our ED is currently only 35-40%, we envisage that over the coming months this will increase dramatically. Additionally, our ED uses a computerised patient tracking system and so it may be possible in the future to mandate the completion of an electronic discharge summary prior to discharging a patient on the computer system.

Study Limitations

Fifty consecutive records only allow the capturing of data from a limited period of time and may represent the practices of a limited number of ED physicians. Representation of ED physician discharge summary habits over various days during the week and at different times during the day may capture and highlight variation in their practices depending on the volume of work and demands on the ED department.

The audit was conducted at a single institution and hence only represents discharge practices and habits from one emergency department.

Continuity of care once patients are discharged from the ED relies heavily on good communication with the GP. This audit does not capture any feedback from GPs. Their input regarding the format, timing and method of delivery of discharge summaries pre and post introduction of the electronic discharge summary would offer a more comprehensive audit cycle.

The second audit cycle captures the first fifty consecutive electronic discharges immediately after specific training relevant to the new discharge summaries. Discharge practices may differ once the initial introductory phase has elapsed.

Conclusion

The introduction of discharge summaries has improved the quality and safety of the discharge process within our ED. It now allows for a uniform, thorough and clear means of information storage and transfer. We hope that it also paves the way for further improvements in information transfer technology.

Ethics Committee Approval: Ethics committee approval was received for this study from the ethics committee of St. James's Hospital, Dublin.

Informed Consent: Due to the nature of this study, informed consent is not applicable.

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Interpretation - B.R, L.Y; Literature Search - B.R, L.Y, A.ELG; Writing - B.R, L.Y, A.ELG; Critical Reviews - U.K

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